MAY 1 2 2000 8

<110> AMRAD Operations Pty Ltd

<120> A NOVEL MAMMALIAN GENE, bc1-2, BELONGS TO THE bc1-2 FAMILY OF APOPTOSIS-CONTROLLING GENES

<130> 2096584

<140> 09/155,327

<141> 1997-03-27

<150> PN8965

<151> 1996-03-27

<160> 9

<170> PatentIn #er. 2.1

<210> 1

<211> 33

<212> DNA

<213> Mouse

<220>

<221> modified_base

<222> 1\$

 $\langle 223 \rangle$ n is inosine

<220>

<221 modified_base

<222> 19

 $\langle 22\beta \rangle$ n is inosine

<2/20>

<221> modified_base

∤222> 22

<223> n is inosine

```
<220>
<221> modified_base
<222> 25
<223> n is inosine
<400> 1
gctctagaac tggggnhgnr tngtngcctt ytt
```

<210> 2 <211> 9 <212> PRT <213> Mouse 33

PI

<220>
<221> Unsure
<222> 5
<223> Xaa is Ile or Val

<400> 2
Asn Trp Gly Arg Xaa Val Ala Phe Phe
1 5

<210> 3
<211> 31
<212> DNA
<213> Mouse

<220>
<221> modified_base
<222> 14
<223> n is inosine

<220>
<221> modified_base
<222> 17
<223> n is inosine

```
<222> 20
<223> n is inosine
<400> 3
ggaattccca gccnccntkn tcttggatcc a
<210> 4
<211> 8
<212> PRT
<213> Mouse
<220>
<221> Unsure
<222> 4
<223> Xaa is Asp or Glu
<220>
<221> Unsure
<222> 5
<223> Xaa is Asn or Gln
<400> 4
Trp Ile Gln Xaa Xaa Gly Gly Trp
  1
<210> 5
<211> 14
```

Met Ala Thr Pro Ala Ser Thr Pro Asp Thr Arg Ala Leu Val

5

31

<220>

<212> PRT <213> Mouse

<400> 5

1

<221> modified_base

10

<211	> 58	3													
<212	> DN	ΙA													
<213	> HU	MAN													
<220	>														
<221> CDS															
<222> (1)(579)															
<400	> 6														
atg	gcg	acc	cca	gcc	tcg	gcc	cca	gac	aca	cgg	gct	ctg	gtg	gca	gac
Met	Ala	Thr	Pro	Ala	Ser	Ala	Pro	Asp	Thr	Arg	Ala	Leu	Val	Ala	Asp
1				5					10					15	
ttt	gta	ggt	tat	aag	ctg	agg	cag	aag	ggt	tat	gtc	tgt	gga	gct	ggc
Phe	Val	Gly	Tyr	Lys	Leu	Arg	Gln	Lys	Gly	Tyr	Val	Cys	Gly	Ala	Gly
			20					25					30		
ccc	ggg	gag	ggc	cca	gca	gct	gac	ccg	ctg	cac	caa	gcc	atg	cgg	gca
Pro	Gly	Glu	Gly	Pro	Ala	Ala	Asp	Pro	Leu	His	Gln	Ala	Met	Arg	Ala
		35					40					45			
gct	gga	gat	gag	ttc	gag	acc	cgc	ttc	cgg	cgc	acc	ttc	tct	gat	ctg
Ala	Gly	Asp	Glu	Phe	Glu	Thr	Arg	Phe	Arg	Arg	Thr	Phe	Ser	Asp	Leu
	50					55					60				
_								ggc							
Ala	Ala	Gln	Leu	His	Val	Thr	Pro	Gly	Ser	Ala	Gln	Gln	Arg	Phe	
65					70					75					80
								ggg							
Gln	Val	Ser	Asp		Leu	Phe	Gln	Gly		Pro	Asn	Trp	GLy		Leu
				85					90					95	
								gca							
Val	Ala	Phe		Leu	Phe	Gly	Ala		Leu	Cys	Ala	Glu		val	Asn
			100					105					110		

<210> 6

aag gag atg gaa cca ctg gtg gga caa gtg cag gag tgg atg gtg gcc Lys Glu Met Glu Pro Leu Val Gly Gln Val Gln Glu Trp Met Val Ala

tac ctg gag acg cgg ctg gtc gac tgg atc cac agc agt gg	gg ggc tgg 432
Tyr Leu Glu Thr Arg Leu Val Asp Trp Ile His Ser Ser Gl	ly Gly Trp
130 135 140	
gcg gag ttc aca gct cta tac ggg gac ggg gcc ctg gag ga	ag gcg cgg 480
Ala Glu Phe Thr Ala Leu Tyr Gly Asp Gly Ala Leu Glu Gl	lu Ala Arg
145 150 155	160
cgt ctg cgg gag ggg aac tgg gca tca gtg agg aca gtg ct	ng acg ggg 528
Arg Leu Arg Glu Gly Asn Trp Ala Ser Val Arg Thr Val Le	
165 170	175
qcc qtq qca ctq qqq qcc ctq qta act gta ggg gcc ttt t	t gct agc 576
Ala Val Ala Leu Gly Ala Leu Val Thr Val Gly Ala Phe Ph	
	90
aag tgaa	583
Lys	
цуЗ	
<210> 7	
<211> 193	
<212> PRT	
<213> HUMAN	
(213) HOMAN	
<400> 7	
	al Ala Asp
Met Ala Thr Pro Ala Ser Ala Pro Asp Thr Arg Ala Leu V	
	al Ala Asp 15
Met Ala Thr Pro Ala Ser Ala Pro Asp Thr Arg Ala Leu Va 1 5 10	15
Met Ala Thr Pro Ala Ser Ala Pro Asp Thr Arg Ala Leu Value of the Val Gly Tyr Lys Leu Arg Gln Lys Gly Tyr Val Cys Gly	15 ly Ala Gly
Met Ala Thr Pro Ala Ser Ala Pro Asp Thr Arg Ala Leu Value of the Val Gly Tyr Lys Leu Arg Gln Lys Gly Tyr Val Cys Gly	15
Met Ala Thr Pro Ala Ser Ala Pro Asp Thr Arg Ala Leu Value 1 5 10 Phe Val Gly Tyr Lys Leu Arg Gln Lys Gly Tyr Val Cys Gly 25	15 ly Ala Gly 30
Met Ala Thr Pro Ala Ser Ala Pro Asp Thr Arg Ala Leu Value 1 5 10 Phe Val Gly Tyr Lys Leu Arg Gln Lys Gly Tyr Val Cys Gly 25 Pro Gly Glu Gly Pro Ala Ala Asp Pro Leu His Gln Ala Metals 1	15 ly Ala Gly 30
Met Ala Thr Pro Ala Ser Ala Pro Asp Thr Arg Ala Leu Value 1 5 10 Phe Val Gly Tyr Lys Leu Arg Gln Lys Gly Tyr Val Cys Gly 25	15 ly Ala Gly 30
Met Ala Thr Pro Ala Ser Ala Pro Asp Thr Arg Ala Leu Value 1 5 10 Phe Val Gly Tyr Lys Leu Arg Gln Lys Gly Tyr Val Cys Gly 25 Pro Gly Glu Gly Pro Ala Ala Asp Pro Leu His Gln Ala Management 35 40 45	15 ly Ala Gly 30 et Arg Ala
Met Ala Thr Pro Ala Ser Ala Pro Asp Thr Arg Ala Leu Value of the Value	15 ly Ala Gly 30 et Arg Ala
Met Ala Thr Pro Ala Ser Ala Pro Asp Thr Arg Ala Leu Value 1 5 10 Phe Val Gly Tyr Lys Leu Arg Gln Lys Gly Tyr Val Cys Gly 25 Pro Gly Glu Gly Pro Ala Ala Asp Pro Leu His Gln Ala Management 35 40 45	15 ly Ala Gly 30 et Arg Ala
Met Ala Thr Pro Ala Ser Ala Pro Asp Thr Arg Ala Leu Value of the Value	15 ly Ala Gly 30 et Arg Ala er Asp Leu

21

Gln Val Ser Asp Glu Leu Phe Gln Gly Gly Pro Asn Trp Gly Arg Leu 85 90 95

Val Ala Phe Phe Leu Phe Gly Ala Ala Leu Cys Ala Glu Ser Val As
n 100 105 110

Lys Glu Met Glu Pro Leu Val Gly Gln Val Gln Glu Trp Met Val Ala 115 120 125

Tyr Leu Glu Thr Arg Leu Val Asp Trp Ile His Ser Ser Gly Gly Trp 130 135 140

Arg Leu Arg Glu Gly Asn Trp Ala Ser Val Arg Thr Val Leu Thr Gly 165 170 175

Ala Val Ala Leu Gly Ala Leu Val Thr Val Gly Ala Phe Phe Ala Ser 180 185 190

Lys

<210> 8

<211> 581

<212> DNA

<213> Mouse

<220>

<221> CDS

<222> (1)..(579)

<400> 8

atg ccg acc cca gcc tca acc cca gac aca cgc gct cta gtg gct gac 4
Met Pro Thr Pro Ala Ser Thr Pro Asp Thr Arg Ala Leu Val Ala Asp
1 5 10 15

•					4												
	ttt	gta	ggc	tat	agg	æg	agg	cag	aag	ggt	tat	gtc	tgt	gga	gct	ggg	96
	Phe	Val	Gly	Tyr	Arg	Leu	Arg	Gln	Lys	Gly	Tyr	Val	Cys	Gly	Ala	Gly	
				20					25					30			
	cct	ggg	gaa	ggc	cca	gcc	gcc	gac	ccg	ctg	cac	caa	gcc	atg	cgg	gct	144
	Pro	Gly	Glu	Gly	Pro	Ala	Ala	Asp	Pro	Leu	His	Gln	Ala	Met	Arg	Ala	
			35					40					45				
	gct	gga	gac	gag	ttt	gag	acc	cgt	ttc	cgc	cgc	acc	ttc	tct	gac	ctg	192
	Ala	Gly	Asp	Glu	Phe	Glu	Thr	Arg	Phe	Arg	Arg	Thr	Phe	Ser	Asp	Leu	
		50					55					60					
	gcc	gct	cag	cta	cac	gtg	acc	cca	ggc	tca	gcc	cag	caa	cgc	ttc	acc	240
	Ala	Ala	Gln	Leu	His	Val	Thr	Pro	Gly	Ser	Ala	Gln	Gln	Arg	Phe	Thr	
	65					70					75					80	
					gaa												288
	Gln	Val	Ser	Asp	Glu	Leu	Phe	Gln	Gly	Gly	Pro	Asn	Trp	Gly		Leu	
					85					90					95		
					gtc												336
	Val	Ala	Phe		Val	Phe	Gly	Ala		Leu	Cys	Ala	Glu		Val	Asn	
				100					105					110			
																	204
		_			cct -												384
	Lys	GLu		GLu	Pro	Leu	Val		GIn	vaı	GIN	Asp		me	vaı	Ala	
			115					120					125				
	+	~+~	~~~	202	cgt	a+ a	aat	~~ <i>~</i>	+~~	ato	Cac	300	aat	aac	aac	taa	432
		_	_		Arg												452
	тÀт	130	GIU	Till	Arg	ьеи	135	Asp	ııp	116	1113	140	Ser	Gry	Gry	115	
		130					133					140					
	aca	a a c	ttc	a.c.a	gct	cta	tac	aaa	aac	aaa	acc	cta	gag	gac	gca	caa	480
		-			Ala												
	145	пор	1110	1111	7114	150	- y -	CLI	r.op	011	155		V			160	
	170					100										- •	
	cat	cta	caa	gag	ggc	aac	taa	gca	tαa	ata	aσc	aca	ata	qta	acq	ggg	528
	-	-			Gly												
	9	_04	9		165					170					175		

gcc gtg gca ctg ggg gcc ctg gta act gta ggg gcc ttt ttt gct agc 576

Val Ala Leu Gly Ala Heu Val Thr Val Gly Ala Phe Phe Ala Ser Lys 180 185 190

aag tg 581

<210> 9

<211> 192

<212> PRT

<213> Mouse

<400> 9

Met Pro Thr Pro Ala Ser Thr Pro Asp Thr Arg Ala Leu Val Ala Asp 1 5 10 15

Phe Val Gly Tyr Arg Leu Arg Gln Lys Gly Tyr Val Cys Gly Ala Gly
20 25 30

Pro Gly Glu Gly Pro Ala Ala Asp Pro Leu His Gln Ala Met Arg Ala 35 40 45

Ala Gly Asp Glu Phe Glu Thr Arg Phe Arg Arg Thr Phe Ser Asp Leu 50 55 60

Ala Ala Gln Leu His Val Thr Pro Gly Ser Ala Gln Gln Arg Phe Thr 65 70 75 80

Gln Val Ser Asp Glu Leu Phe Gln Gly Gly Pro Asn Trp Gly Arg Leu 85 90 95

Val Ala Phe Phe Val Phe Gly Ala Ala Leu Cys Ala Glu Ser Val Asn 100 105 110

Lys Glu Met Glu Pro Leu Val Gly Gln Val Gln Asp Trp Ile Val Ala 115 120 125

Tyr Leu Glu Thr Arg Leu Ala Asp Trp Ile His Ser Ser Gly Gly Trp 130 135 140

Ala Asp Phe Thr Ala Leu Tyr Gly Asp Gly Ala Leu Glu Asp Ala Arg 145 150 155 160

Arg Leu Arg Glu Gly Asn Trp Ala Val Ser Thr Val Val Thr Gly
165 170 175

Ala Val Ala Leu Gly Ala Leu Val Thr Val Gly Ala Phe Phe Ala Ser 180 185 190

Lys

